Flavio Vinicius Diniz de Figueiredo

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OBJECTIVE

Having done research and development at several university projects related to data mining, information retrieval and distributed computing; I am currently, seeking for opportunities to work with these areas on problems with a social impact.

EDUCATION

PhD, Computer Science   2010 - 2015 (expected graduation in May)
Universidade Federal de Minas Gerais (UFMG)
Belo Horizonte, MG, Brasil
Advisor: Prof. Jussara Marques de Almeida
GPA: 88.2 out of 100[†]

MsC, Computer Science   2008 to 2010
Universidade Federal de Minas Gerais (UFMG)
Belo Horizonte, MG, Brasil
Advisor: Prof. Jussara Marques de Almeida
GPA: 88.7 out of 100

BsC, Computer Science   2003 to 2007
Universidade Federal de Campina Grande (UFCG)
Campina Grande, PB, Brasil
Advisor: Prof. Francisco Vilar Brasileiro
GPA: 76.3 out of 100

LANGUAGES

Fluent in English and Portuguese.

R & D EXPERIENCE

PhD Researcher at UFMG   since 2010

– Currently researching the impact of structural changes in dynamic social networks for service (i.e. content distribution or IR) design

– Research done for Brazil's National Institute for Web Research (InWeb - http://www.inweb.org.br)

– Keywords: Data Mining, Web Crawling, Machine Learning, Java, Python

– Open sourced code:
  http://github.com/flaviovdf/spiderpig
  http://github.com/flaviovdf/youtime
  http://github.com/flaviovdf/pyksc

Visiting Scholar at Carnegie Mellon University October 2013 to October 2014

– Visiting the Databases Group (http://db.cs.cmu.edu)

– Researching social media access time series. Creating models for time series evolution and prediction.

– Joint work done with Prof. Christos Faloutsos

– Keywords: Data mining, Time series, Machine Learning

– Open sourced code:
  http://github.com/flaviovdf/phoenix

[†]GPAs on a 0 to 100 scale. Not graded on a curve.

Visiting Scholar at University of British Columbia   March to August 2011

– Visiting the Networked Systems Laboratory (http://netsyslab.ece.ubc.ca)

– Researching tagging systems (i.e. Delicious) from a online peer production systems perspective. In details, we sought to measure the value of information in tags for peers (users) in the system

– Joint work done with Prof. Matei Ripeanu and PhD student Elizeu Santos-Neto

– Keywords: Information Retrieval, NLP, Python, Cython

– Open sourced code:
  `http://github.com/flaviovdf/tag_assess`

MsC Researcher at UFMG   2008 to Feb 2010

– Research done on social network and Web 2.0 sites with the main objective of extracting evidence of quality of textual data (i.e. tags or comments) data when applied to information retrieval (IR) tasks.

– Research done for Brazil's National Institute for Web Research (InWeb - `http://www.inweb.org.br`)

– Keywords: Data Mining, Web Crawling, Information Retrieval, Java, Python

– Open sourced code:
  `http://github.com/flaviovdf/spiderpig`

R & D for OurGrid   2007

– Member the OurGrid Project (`http://www.ourgrid.org`)

– Researcher on cloud and utility computing. More specifically, we studied how to create hybrid clouds using local, shared and utility computing resources.

– Keywords: Distributed Systems, Cloud Computing, Virtual Machines, Java

– Open sourced code:
  `http://github.com/ourgrid/ourgrid`

Developer for OurGrid   2006

– Member the OurGrid Project (`http://www.ourgrid.org`)

– Part of the development team which at the time was focused on re-coding the the OurGrid middleware for a new event based communication infrastructure.

– Keywords: Distributed Systems, Java, RMI

– Open sourced code:
  `http://github.com/ourgrid/ourgrid`

Developer at Failure Spotter   2005

– Member the Failure Spotter Project (`http://spotter.lsd.ufcg.edu.br`)

– Developed a fault tolerant execution and scheduling service for the grid middleware OurGrid (`http://www.ourgrid.org`).

– Keywords: Distributed Systems, Fault Tolerance, Java, RMI

– Open sourced code:
  `http://github.com/ourgrid/ourgrid`

TECHNICAL SKILLS

Programming Languages Java, Python, Unix Scripting (i.e. Bash)

Data Analysis Numpy, Scipy, Octave and R

Familiar Concepts Parallel Computing, Distributed computing, Web crawling, Data Mining, Machine Learning, Information Retrieval (IR)

OPEN SOURCE CODE

Some repositories were listed above in their respective project. For a full list please visit: `http://github.com/flaviovdf`

AWARDS

2014 Google Brazil Ph.D. Fellowship Award – Renewal

2014 Capes Scholarship for Visiting Scholar (PhD. Sandwich Program)

2013 Google Brazil Ph.D. Fellowship Award

2012 IBM Ph.D. Fellowship Award

2011 Canadian Emerging Leaders in the Americas Program (ELAP)

2011 CNPq Scholarship for PhD Studies

2010 Capes Scholarship for PhD Studies

2010 National Institute for Web Research (InWeb) Scholarship for MsC studies

2009 UOL Scholarship for MSc Studies. Grant 20090215103600

2008 CNPq Scholarship for MSc Studies

2006 to 2007 Hewlett Packard Brazil Scholarship for the OurGrid project

2005 Hewlett Packard Brazil scholarship for the Failure Spotter project

JOURNAL PUBLICATIONS

Figueiredo, F., Almeida, J., Benevenuto, F., Gonçalves, M. "On the Dynamics of Social Media Popularity: A YouTube Case Study", *ACM Transaction on Internet Technology*, Vol. 14, Issue 4, December 2014.

Figueiredo, F., Almeida, J., Benevenuto, F., Gonçalves, M. "TrendLearner: Early Prediction of Popularity Trends of User Generated Content", under review

Figueiredo, F., Belém, F., Pinto, H., Almeida, J., Gonçalves, M., Fernandes, D. and Moura, E. "Assessing the Quality of Textual Features in Social Media", *Information Processing & Management*, Vol. 49, pp. 222 - 247, 2013.

Almeida, J., Gonçalves, M., Figueiredo, F., Belém, F. and Pinto, H. "On the Quality of Information for Web 2.0 Services", *IEEE Internet Computing*, Vol. 14, pp. 47-55, 2010.

SELECTED CONFERENCE PUBLICATIONS

For a complete list visit: `http://www.dcc.ufmg.br/~flaviov`

Figueiredo, F., Almeida, J., Gonçalves, M. "Improving the Effectiveness of Content Popularity Prediction Methods using Time Series Trends " In *ECML/PKDD Predictive Analytics Challenge*, 2014.

Figueiredo, F., Matsubara, Y., Ribeiro, B., Almeida, J., Faloutsos, C. "Revisit Behavior in Social Media: The Phoenix-R Model and Discoveries " In *European Conference on Machine Learning and Principles and Practice of Knowledge Discovery - ECML/PKDD*, 2014.

Gonçalves, G., Figueiredo, F., Almeida, J., Gonçalves, M. "Characterizing Scholar Popularity: A Case Study in the Computer Science Research Community" In *ACM/IEEE Joint Conference on Digital Libraries - JCDL*, 2014.

Figueiredo, F., Almeida, J., Benevenuto, F., Gummadi, K. "Does Content Determine Information Popularity in Social Media? A Case Study of YouTube Videos' Content and their Popularity " In *Proc. ACM CHI Conference on Human Factors in Computing Systems - CHI*, 2014.

Figueiredo, F. "On the Prediction of Popularity of Trends and Hits for User Generated Videos" In *Proc. ACM Conference on Web Search and Data Mining - WSDM*, 2013.

Figueiredo, F., Benevenuto, F. and Almeida, J. "The Tube over Time: Characterizing Popularity Growth of YouTube Videos", In *Proc. ACM Conference on Web Search and Data Mining - WSDM*, 2011.

Santos-Neto, E., Figueiredo, F., Almeida, J., Mowbray, M., Gonçalves, M. and Ripeanu, M. "Assessing the Value of Contributions in Tagging Systems", In *Proc. IEEE International Symposium on Social Intelligence and Networking - SIN*, 2010.

Figueiredo, F., Belém, F., Pinto, H., Almeida, J., Gonçalves, M., Fernandes, D., Moura, E. and Cristo, M. "Evidence of Quality of Textual Features on the Web 2.0", In *Proc. ACM Conference on Information Knowledge and Management - CIKM*, 2009.

Ditarso, P., Figueiredo, F., Candeia, D., Brasileiro, F. and Coelho, A. "On the Planning of a Hybrid IT Infrastructure", In *Proc. IEEE Network Operations and Management Symposium - NOMS*, 2008.

Coelho, A., Ditarso, P., Figueiredo, F., Candeia, D. and Brasileiro, F. "On the Impact of Choice in Multi-Service P2P Grids", In *Proc. Workshop on Business Driven IT Management in Conjunction with NOMS*, 2008.

Brasileiro, F., Araújo, E., Voorsluys, W., Oliveira, M. and Figueiredo, F. "Bridging the High Performance Computing Gap: the OurGrid Experience", In *Proc. First Latin America Grid Workshop - LAGrid07 with CCGRID*, 2007.

Figueiredo, F., Brito, A. and Brasileiro, F. "Implementing a Distributed Execution Service for a Grid Broker", In *Proc. Fault Tolerance Workshop in conjunction with the Brazilian Symposium of Computer Networks*, 2006.

REFERENCES Provided upon request